

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A graphical code reader, comprising:  
an infrared light-emitting diode;  
a red light-emitting diode;  
an image sensor;  
a lens positioned to focus reflected light on the image sensor;  
a processor;  
memory in electronic communication with the processor; and  
instructions stored in the memory, the instructions being executable by the processor to  
implement a method comprising:  
illuminating the infrared light-emitting diode at an infrared illumination intensity  
level;  
illuminating the red light-emitting diode at a red illumination intensity level;  
capturing a digital image for processing, the digital image being an electronic  
representation of an optical image formed on the image sensor; and  
processing the digital image to attempt to decode a graphical code within the  
digital image,  
wherein the graphical code reader is configured such that the user can set the infrared  
illumination intensity level and the red illumination intensity level.
2. (Original) The graphical code reader of claim 1, wherein the method further comprises:  
detecting user input;  
obtaining illumination information from the user input;

setting the infrared illumination intensity level in accordance with the illumination information; and  
setting the red illumination intensity level in accordance with the illumination information.

3. (Currently Amended) A graphical code reader, comprising: The graphical code reader of claim 1, wherein the method further comprises:

an infrared light-emitting diode;

a red light-emitting diode;

an image sensor;

a lens positioned to focus reflected light on the image sensor;

a processor;

memory in electronic communication with the processor; and

instructions stored in the memory, the instructions being executable by the processor to

implement a method comprising:

illuminating the infrared light-emitting diode at an infrared illumination intensity level;

illuminating the red light-emitting diode at a red illumination intensity level;

capturing a digital image for processing, the digital image being an electronic

representation of an optical image formed on the image sensor; and

processing the digital image to attempt to decode a graphical code within the

digital image, wherein the method further comprises:

determining a brightness of the digital image;

determining a desired brightness of the digital image;

determining a difference signal which indicates a difference between the

brightness of the image and the desired brightness of the digital image;

adjusting the infrared illumination intensity level in proportion to the difference signal; and  
adjusting the red illumination intensity level in proportion to the difference signal.

4. (Original) The graphical code reader of claim 1, wherein the infrared light-emitting diode emits infrared light having a wavelength band that is substantially centered at 700 nanometers.
5. (Original) The graphical code reader of claim 1, wherein the infrared light-emitting diode emits infrared light having a wavelength band that is substantially centered at 735 nanometers.
6. (Original) The graphical code reader of claim 1, wherein the red light-emitting diode emits infrared light having a wavelength band that is substantially centered at 660 nanometers.
7. (Original) A graphical code reader, comprising:
  - an infrared light-emitting diode;
  - a red light-emitting diode;
  - a near field that includes a near-field image sensor region and a near-field lens positioned to focus first reflected light on the near-field image sensor region;
  - a far field that includes a far-field image sensor region and a far-field lens positioned to focus second reflected light on the far-field image sensor region, and wherein a first distance between the near-field lens and the near-field image sensor region is greater than a second distance between the far-field lens and the far-field image sensor region;
  - a processor;
  - memory in electronic communication with the processor; and
  - instructions stored in the memory, the instructions being executable by the processor to implement a method comprising:

illuminating the infrared light-emitting diode at an infrared illumination intensity level;  
illuminating the red light-emitting diode at a red illumination intensity level;  
obtaining a digital image, the digital image being an electronic representation of an optical image formed on at least one of the near-field image sensor region and the far-field image sensor region; and  
processing the digital image to attempt to decode a graphical code within the digital image.

8. (Original) The graphical code reader of claim 7, wherein the method further comprises:  
determining which of the near field and the far field is being used to read the graphical code; and  
reducing the infrared illumination intensity level below the red illumination intensity level if the near field is being used to read the graphical code.
9. (Original) The graphical code reader of claim 7, wherein the method further comprises:  
determining which of the near field and the far field is being used to read the graphical code; and  
increasing the infrared illumination intensity level if the far field is being used to read the graphical code.
10. (Currently Amended) In a graphical code reader, a method comprising:  
illuminating an infrared light-emitting diode at an infrared illumination intensity level;  
illuminating a red light-emitting diode at a red illumination intensity level;  
capturing a digital image for processing, the digital image being an electronic representation of an optical image formed on an image sensor; and

processing the digital image to attempt to decode a graphical code within the digital image, wherein the graphical code reader is configured such that the user can set the infrared illumination intensity level and the red illumination intensity level.

11. (Original) The method of claim 10, further comprising:  
detecting user input;  
obtaining illumination information from the user input;  
setting the infrared illumination intensity level in accordance with the illumination information; and  
setting the red illumination intensity level in accordance with the illumination information.
12. (Currently Amended) ~~The method of claim 10, further comprising:~~ In a graphical code reader, a method comprising:  
illuminating an infrared light-emitting diode at an infrared illumination intensity level;  
illuminating a red light-emitting diode at a red illumination intensity level;  
capturing a digital image for processing, the digital image being an electronic representation of an optical image formed on an image sensor;  
processing the digital image to attempt to decode a graphical code within the digital image;  
determining a brightness of the digital image;  
determining a desired brightness of the digital image;  
determining a difference signal which indicates a difference between the brightness of the image and the desired brightness of the digital image;  
adjusting the infrared illumination intensity level in proportion to the difference signal;  
and  
adjusting the red illumination intensity level in proportion to the difference signal.

13. (Original) The method of claim 10, wherein the infrared light-emitting diode emits infrared light having a wavelength band that is substantially centered at 700 nanometers.
14. (Original) The method of claim 10, wherein the infrared light-emitting diode emits infrared light having a wavelength band that is substantially centered at 735 nanometers.
15. (Original) The method of claim 10, wherein the red light-emitting diode emits infrared light having a wavelength band that is substantially centered at 660 nanometers.
16. (Original) In a graphical code reader comprising a near field and a far field, the near field including a near-field image sensor region and a near-field lens positioned to focus first reflected light on the near-field image sensor region, and the far field including a far-field image sensor region and a far-field lens positioned to focus second reflected light on the far-field image sensor region, a method comprising:
  - illuminating an infrared light-emitting diode at an infrared illumination intensity level;
  - illuminating a red light-emitting diode at a red illumination intensity level;
  - obtaining a digital image, the digital image being an electronic representation of an optical image formed on at least one of the near-field image sensor region and the far-field image sensor region; and
  - processing the digital image to attempt to decode a graphical code within the digital image, wherein a first distance between the near-field lens and the near-field image sensor region is greater than a second distance between the far-field lens and the far-field image sensor region.
17. (Original) The method of claim 16, further comprising:
  - determining which of the near field and the far field is being used to read the graphical code; and

reducing the infrared illumination intensity level below the red illumination intensity level if the near field is being used to read the graphical code.

18. (Original) The method of claim 16, further comprising:  
determining which of the near field and the far field is being used to read the graphical code; and  
increasing the infrared illumination intensity level if the far field is being used to read the graphical code.